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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,100	05/21/2001	Fuminori Nakajima	IIDAP7.001AP-	8246

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EXAMINER

THOMPSON, CAMIE S

ART UNIT PAPER NUMBER

1774

DATE MAILED: 08/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/786,100

Applicant(s)

NAKAJIMA ET AL.

Examiner

Camie S Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on RCE filed on July 7, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 7, 2003 has been entered.
2. The rejection of claims 1, 4 and 7-9 under 35 U.S.C. 103(a) as being unpatentable over Nakajima et al., JP 10-013080 in view of Breant, U.S. Patent Number 6,025,423 is withdrawn due to applicant's argument.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 3-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima et al., JP 10-010380 in view of Mogami et al., U.S. Patent Number 5,684,071. Nakajima discloses a single core optical fiber cord used in office automation and has an outer diameter of 1 mm and has a resin coating at the center, a tensile-strength –fiber layer around the outer periphery of the fiber core wire and a thermoplastic resin sheath coating around the outer

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periphery of the tensile-strength-fiber layer (see Figure and page 1, paragraph 4). The Japanese reference does disclose that the coating layer is composed a non-halogen fire-retardant resin or the composition of the coating layer as per instant claims 1 and 4. The Japanese reference does not disclose the composition of the coating layer. Mogami teaches a resin composition used for electric parts in office automation. Mogami teaches a flame retardant polyester resin composition without using a halogen based flame retardant that can comprise ammonium polyphosphate and a surface-treated nitrogen-containing heterocyclic compound such as melamine cyanurate as per instant claims 1, 4 and 7 (see column 1, lines 17-20; column 3, lines 43-50 and column 8, lines 26-33). The resin composition described by Mogami provides flame resistance, electric properties, lubricity, plasticity, and heat and moisture resistance. Therefore, it would have been obvious to one of ordinary skill in the art to use the Mogami resin composition as the coating layer of the Nakajima reference in order to have an optical fiber cord with heat and moisture resistance, good mechanical properties and heat stability as described by Mogami in column 1, lines 9-27. Additionally, Mogami teaches that nitrogen-containing heterocyclic compound is present in the composition in an amount of 2 to 50% based on the thermoplastic resin and that the phosphorus based flame retarder such as ammonium polyphosphate is present in the amount of 0-50% as per instant claims 1, 4 and 5 (see column 7, lines 50-64 and column 9, lines 56-64). The amount of flame retarder and nitrogen-containing heterocyclic compound affects the flame resistance, mechanical properties and heat resistance. Therefore, it would have been obvious to one of ordinary skill in the art to have a resin composition wherein the fire retardant containing ammonium polyphosphate and a nitrogen-containing heterocyclic compound are 18-60 parts by weight to a 100 parts by weight of thermoplastic resin as per

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instant claims 1, 4 and 5 in order to increase flame resistance, heat resistance and the mechanical properties of the optical fiber cord.

Neither reference discloses that the ammonium polyphosphate is surface treated as per instant claim 3 and 6. A surface treated flame retardant decreases the deterioration of the mechanical properties of the composition. Therefore, it would have been obvious to one of ordinary skill in the art to use a surface-treated ammonium polyphosphate in the composition in order to maintain the mechanical properties and to protect the surface of the optical fiber cord.

The bending modulus of the outer coating layer of the optical fiber is between 500 to 1,300 MPa as this is a physical property of the outer coating resin layer as per instant claims 8 and 9. Since the same resin is used by the reference and in the instant invention, this feature is inherent.

Response to Arguments

5. Applicant's arguments filed July 7, 2003 have been fully considered but they are not persuasive. Applicant argues that the Mogami reference does not disclose a polyester elastomeric series thermoplastic resin. The abstract of the Mogami reference discloses that the resin composition comprises a thermoplastic polyester, which can include a polyester elastomeric series thermoplastic resin. Additionally, the Mogami reference discloses that the polyester resin composition may contain plasticizer and other polymers than thermoplastic polyester (see column 12, line 61-column 13, line 3. Therefore, the polyester resin composition of the Mogami reference may contain a polyester elastomeric series thermoplastic resin. Applicant argues the combination of the Nakajima and Mogami references. Both references are used in office automation devices. Thus, they are analogous art. Both references disclose an

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optical fiber cord with a resin composition. The resin composition of the Mogami reference has high flame resistance and excellent mechanical and heat resistant properties. The rejection is maintained.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (703) 305-4488. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly, can be reached at (703) 308-0449. The fax phone number for official papers is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.



Camie Thompson



DEBORAH JONES
SUPERVISORY PATENT EXAMINER